



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

JUL 24 2001

MEMORANDUM

SUBJECT: Case R01S26, SDG 01163B
Results for Perchlorate Analysis

FROM: *B. Bettencourt*
Brenda Bettencourt, Director
EPA Region 9 Laboratory (PMD-2)

TO: Kevin Mayer, Remedial Project Manager
Northern California Cleanup Section (SFD-7-2)

Attached are the report narrative and results spreadsheet from analysis of samples from the Colorado River Perchlorate Study. These data have been reviewed in accordance with EPA Region 9 Laboratory policy. Summary information for the data included in this report is as follows:

SITE/PROJECT:	Colorado River Perchlorate Study
CASE:	R01S26
LABORATORY:	U. S. EPA Region 9 Laboratory
SAMPLE DELIVERY GROUP(s):	01163B
ANALYSIS:	Perchlorate (EPA method 314.0)

A full documentation package for these data, including raw data and sample custody documentation, has been prepared and is filed at the Region 9 Laboratory. Please contact Vance Fong of the Quality Assurance Program (PMD-3) to request further review and/or validation of the data.

If you have any questions please contact Rich Bauer at (510) 412-2312, or Ken Hendrix at (510) 412-2321.

ATTACHMENT: Analytical Report

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER:	R01S26
SAMPLE DELIVERY GROUP:	01163B
PROGRAM:	SUPERFUND
DOCUMENT CONTROL #:	B0101011-0280
DATE:	07/09/01
ANALYSIS:	Perchlorate
SAMPLE NUMBERS:	

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
09419700-02/27/01	AB31537
09419700-04/25/01	AB31538
09419700-06/04/01	AB31539
09419800-02/28/01	AB31540
09419800-04/23/01	AB31541
09419800-06/05/01	AB31542
09415000-02/26/01	AB31543
09415000-04/24/01	AB31544
09415000-06/06/01	AB31545
09421500-04/19/01	AB31546
09421500-06/07/01	AB31547

GENERAL COMMENTS

Eleven water samples were received from the Colorado River Perchlorate Remedial Superfund project on 06/12/01.

The requested analysis was perchlorate by Region 9 Laboratory SOP #531 (EPA Method 314.0). Some of the samples were collected more than three months prior to submittal date. The samples that were collected in the month of June were analyzed within the suggested 28-days holding time.

SAMPLE RECEIPT AND PRESERVATION

Samples 09419700-02/27/01, 09419700-04/25/01, 09419800-02/28/01, 09419800-04/23/01, 09415000-02/26/01, 09415000-04/24/01, and 09421500-04/19/01 were received after the suggested 28-days holding time. Samples were received at a temperature of 21°C, which is outside the 2-6°C temperature requirements. It is believed that this discrepancy will not have an effect on the perchlorate results.

QC COMMENTS

A All results less than the quantitation limit (QL) are estimated (J).

No analyte was detected in the LRB associated with this SDG.

The perchlorate result for QC sample 09419800-02/28/01 was greater than 4x the added LFM of 5 ug/L. No LFM and LFM duplicate recoveries were calculated for the 5 ug/L perchlorate spike. All other LFM and LFM duplicate recoveries were within the 70-130% QC limits.

All LFM and LFM duplicate RPDs were less than or equal to the 20% QC limit.

The LFB recovery was within the 90-110% QC limits.

Questions concerning the data can be answered by Osell Salvador at (510) 412-2358.

GLOSSARY

Laboratory Reagent Blanks (LRB)

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

Laboratory Fortified Matrix (LFM), Laboratory Fortified Matrix Duplicate (LFMD) and Laboratory Duplicate (LD) Analysis

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Laboratory Fortified Blank (LFB) Analysis

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

EPA REGION 9 LABORATORY-RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R01S26
 Site: Colorado River Study
 SDG: 01163B
 Date: 07/09/01

Analysis: Perchlorate
 Matrix: Water

Sample No.	LV Wash@Henderson			LV Wash@Henderson			LV Wash@Henderson			LV Wash@BoulderCity			LV Wash@BoulderCity			LV Wash@BoulderCity		
Sample I.D.	09419700-02/27/01			09419700-04/25/01			09419700-06/04/01			09419800-02/28/01			09419800-04/23/01			09419800-06/05/01		
Lab Sample I.D.	AB31537			AB31538			AB31539			AB31540			AB31541			AB31542		
Date of Collection	02/27/01			04/25/01			06/04/01			02/28/01			04/23/01			06/05/01		
Units	ug/L			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate	74			69			32			51			400			500		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample quantitation limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

Sample No.	VirginRiver@Littlefield			VirginRiver@Littlefield			VirginRiver@Littlefield			ColoradoRiver@HooverDam			ColoradoRiver@HooverDam			Reagent		
Sample I.D.	09415000-02/26/01			09415000-04/24/01			09415000-06/06/01			09421500-04/19/01			09421500-06/07/01			Blank		
Lab Sample I.D.	AB31543			AB31544			AB31545			AB31546			AB31547			N/A		
Date of Collection	02/26/01			04/24/01			06/06/01			04/19/01			06/07/01			N/A		
Units	ug/L			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate	5	U		5	U		4	J	A	4	J	A	6			5	U	

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample quantitation limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

Sample No.	Quantitation
Sample I.D.	Limit
Lab Sample I.D.	N/A
Date of Collection	N/A
Units	ug/L
Analyte	Result
Perchlorate	5

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample quantitation limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.